countenance of the man in the cap is particularly vigorous and characteristic.

Malcolm tells us that the original floor of the hall was 'of marble, but covered with wood at present, for the double purpose of warmth and to preserve it from injury.' We have thus a pretty perfect picture of the hall in all its phases: originally with an open timber roof springing from elegantly sculptured corbels; a noble east window, filled with old glass, its western end rich with paintings, 'the best to be had,' combining vigorous drawing with brilliant execution; and a series of elegant arabesques upon the side walls. Tapestry over carved panels of wood reached to the corbels on gala days, when the hall would be strewn with rushes, and resound to the minstrelsy, which the many entries in their books shew they frequently indulged in. In time the olden splendour is dim, the fashions alter, or the roof decays, or may be in some degree injured by the great fire; and five years after, it is replaced by one 'in the newest taste;' but throughout all its vicissitudes, enough has been spared to give us at this time a clear idea of its original form and decoration."

The company originally possessed considerable power over "the trade;" and their charters would probably afford much interesting matter on this head. We have not yet obtained access to them, but hope to do so before long.

PORTLAND STONE.

Sir,—The removal of the duty off Caen stone has caused that material to be very generally used in London, &c., these last two or three years. I beg leave to offer a few remarks on Portland stone, knowing that, unfortunately, there is an impression among many architects and gentlemen that it will not resist the action of the weather, and, consequently, is not calculated for a public building. The principal cause of this impression is, I have no doubt, the stone used at the entrance to the park at Hyde-park-corner and the Church at Brighton, built about twenty years ago. I shall, by stating facts, endeavour to shew that the stone used at both these buildings is not a fair specimen of the durability of Portland stone; for, unfortunately, they were built with the worst stone the island produces for exterior work. In the case of Brighton Church, the contractor not requiring any large blocks, went to the island of Portland and bought up, at a reduced price, the blocks that were scattered about the quarries—the refuse of other tradesmen for thirty years before. Consequently, stone of an inferior quality, unsound blocks, and stone quite unfit for external work, were indiscriminately mixed and used in the building. Thus Brighton Church is not a fair specimen of Portland stone, but rather of the bad judgment of the builder in selecting stone not fit for external work.

In reference to the building at Hyde-park-corner, it will be necessary to explain the manner of quarrying the stone, to shew what stone was used at these buildings. The principal part of the stone quarried at Portland, and generally used, is called the white bed; about ten feet below this there is another layer or bed of stone, about six feet high. This is not generally, but is occasionally, quarried: it is termed the best bed, and is of a very fine quality, and well calculated for all sorts of in-door work, such as stair-cases, paving, &c., but not at all fit for exterior work, as it will in no case resist the action of the weather. Decomposition commences as soon as it is fixed in the building, and exposed to the weather. At the commencement of the building above-named there was a scarcity of Portland stone, and the builder unfortunately selected a quantity of the best bed, rather than wait for a supply of the white bed; in consequence of which, the chaste and beautiful sculpture and ornaments are in a state of premature decay: if they had been executed in Portland stone, properly selected, they would have been as perfect now as when left from the hands of the carver, as is the case at the same building, where the Corinthian capitals, executed in the white bed, are as perfect as ever.

Thus, the improperly selected stone for Brighton Church and Hyde-park-corner has partially (by a false impression), destroyed the character of Portland stone which has been in general use for more than two centuries, and was extensively patronized by Sir Christopher Wren, as most of his public buildings prove. Having shewn the cause of certain buildings being in a state of decay, I shall now endeavour to prove, that Portland stone (if properly selected), will resist the action of the weather, and that it is the best material for public buildings of any brought to London (and I have the authority of one of the most talented architects of the day, a gentleman at the head of his profession, in confirmation of the assertion); to prove this, I shall refer to St. Paul's Cathedral, where the ornaments, which being much relieved, would, of course, first decay, are as perfect as ever; (for instance, those beautiful swags of flowers around the building, which if the stone would not stand the weather, would have dropt from the face of the stone years ago, but are now quite perfect, as is the building generally. As respects the decay of the face of the stone, I shall also refer to the new church, Strand, the two towers at the west end of Westminster Abbey, Greenwich Hospital, and all buildings of Portland stone built a century and more ago, which are all nearly as perfect as ever. It may be affirmed, that the stone is not as good now as it was a hundred years since, but having had extensive practice in the quarries, I can confidently affirm, that the stone is as good now as it ever was; I will example the following buildings erected within the last thirty years:—The Custom-house, London General Post Office, Goldsmiths'-hall, Reform Club-house, and Royal Exchange: neither of these buildings shew any signs of decay, and if stone will not stand the weather, decomposition begins as soon as it is fixed in the building.

Thus, if Portland stone is properly selected (for which for the Reform Club-house, Royal Exchange and British Museum, a competent person was sent to the island), there is no doubt of its durability; and it has, moreover, an advantage over other stone, inasmuch as the waste or outside slabs, are more suited for general purposes, than any other stone brought to London. I am, Sir, yours, &c.

A Mason of Twenty Years' Practice on Portland Stone.

TO THE LONDON GAS COMPANIES.

Gentlemen,—When we look at the difficulties the system of gas lighting has had to encounter, the opposition it has met with from ignorance, prejudice, and interest, and now see the successful and flourishing state of its practical application, it leads us to think highly of the moral energies of the nation. In the present day we are enjoying the gratification of having introduced this branch of science to a practical utility, calculated to be of the greatest benefit to mankind, and in after ages we may confidently expect to have it recorded, that it was England and Englishmen that conferred this benefit on posterity.

Notwithstanding, however, that this branch of science has arrived at a wonderful degree of perfection, it is not difficult to perceive that much yet remains to be done, both as to a more general diffusion of the advantages of its introduction, and improvements in its more general applicability, and its production. It is to these points that I now beg to call your attention, and I would suggest the necessity of greater care being paid to the quality of the gas manufactured, and that you should cease to devote attention to the coke; rely solely on the gas, by which you would find your profits very considerably increased, in addition to rendering the gas available for the lighting of private houses, which at present it is unfitted for, through the comparative smallness of its illuminating power. I would suggest the use of Cannel coal, or at least a mixture of it with the Newcastle, and not allowing the coal to remain so long in the retorts as is now usual, as by the excessive baking it has been proved its illuminating power is destroyed, and you do not reap advantage, from the increased quantity of gas carbonized. By your present system you hold out inducements for the introduction of new companies, who, if once started on the principle of supplying richly illuminating gas, you would find formidable opponents, and when too late you will have to alter your system and follow in their wake. But you could never successfully compete with them, as a company so constituted would require smaller sized works for the carbonizing, lesser sized mains for the distribution of the gas, and a considerably less establishment, not being burdened with the make or sale of coke; and in consequence the capital required would be less, whilst the profits would be greater. It behoves you to take this into consideration without further delay; as once let the consumers of gas see that it is to their interest to be supplied with a richly illuminating gas, and they will not be long in taking steps to be so supplied, and this is being every day brought nearer by the introduction of meters. It has been proved that only half the quantity of Cannel coal gas is required to give a requisite light, in comparison with Newcastle coal—for instance, the gas being consumed through a thirty-hole argand burner, it required, to give light equal to twenty-five mould candles, seven cubic feet and five-tenths *of gas made from Newcastle coal*, and *only three feet of gas from Cannel coal*. This has been proved by Messrs. Clegg, Hedley, Lowe, and many other engineers of the present day. The necessity of the improvement in London gas is acknowledged by your own engineers, as shewn by their various patents, the one of which was for passing gas over naphtha; this certainly is very beneficial, and adds greatly to the illuminating power, but I cannot see why the naphtha or carbon should be first taken from the gas by excessive baking, and then a patent process adopted for giving it back again. It puts me in mind of a company that was formed for the purpose of supplying bread from which the spirit had been extracted; before they could effect sales they were obliged to give a glass of spirits with each loaf. Where was the gain? just so in your case, you take the spirit from the gas, and in consequence have to give twice the quantity to your public lights and scale consumers, and for which extra quantity you do not get paid. In concluding this letter I will sum up with what I think would be to your interest to do—pay more attention to the manufacture of gas, and less to that of coke; lessen your expenses, see to the competency of your officers, to the proper distribution of the main pipes, and the fittings for houses, shops, &c. Sincerely trusting that these suggestions will not be lost,

I have the honour to be, &c.,
Feb. 9th, 1846. "Carbon."

ART-UNION CARTOONS.

The committee have determined on engraving in outline, and distributing to all the subscribers of some ensuing year, nine of the cartoons that were submitted in competition, of course with the assent of the respective artists, who will themselves be invited to make the reduced drawing at the expense of the society. The following is the list:—2. Saxon Alms-giving. 4. Life of Alfred. 8. Queen Elizabeth's visit to Kenilworth. 12. Howard visiting a prison (*Armitage*). 13. Non Angli sed Angeli (*Scharf*). 22. Alfred surrounded by his family (*Sauer*). 23. The welcome of the Boy-King, Henry VI. (*Corbould*). 25. Seizure of Roger Mortimer (*Paton*); and 27. Spenser reading the Faerie Queene to Raleigh (*Claxton*). We are disposed to think this determination will give universal satisfaction, as well to the subscribers generally as to the artists named, whose works will thus be brought under the notice of "all England," and somewhere besides.

New Buildings at Hamburgh.—A correspondent of *The Times* says a number of the newly-erected, many of them still unfinished, buildings on the Monkedamm have given way; and, though for the moment secured, as far as may be, by strong wooden props, must, it is feared, be taken down in whole or in part; and God only knows how many houses as yet free from outward flaw may be in a similar precarious predicament. The examination ordered by the senate is whispered to have produced some very disagreeable discoveries; shall the lives of the liegees, whether inhabitants or passers-by, be left to the tender mercies of architect contractors or building speculators, who, can they but close the rents, and whiten over the defects until they deliver over their work, or sell their houses, will care little how long or how short they may stand afterwards?

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